



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/698,884	10/28/2000	Katsuhiko Shimano	44471-249027	5949

7590 01/10/2005

Kilpatrick Stockton LLP
2400 Monarch Tower
3424 Peachtree Road N E
Atlanta, GA 30326

EXAMINER

HAN, CLEMENCE S

ART UNIT	PAPER NUMBER
----------	--------------

2665

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/698,884

Applicant(s)

SHIMANO ET AL.

Examiner

Clemence Han

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-10 and 14-20 is/are rejected.
- 7) ☒ Claim(s) 4-6 and 11-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Responsive to amendment received on September 1, 2004, amended claims 1-3, 6, 8-11 and 15-20 are entered as requested.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claim 1-3, 7-10 and 14-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikeda et al. (US 6,643,041).

Regarding to claim 1 and 8, Ikeda teaches a method for operating a path network for carrying out communications between nodes using one or more working paths and one or more protection paths, the method comprising the steps of: transmitting path signals from a transmitting node to a receiving node through the working paths and the protection paths (Column 10 Line 4-5); and converting one of the protection paths into a working path temporarily in order to increase a bandwidth of the working paths when a bandwidth increase request occurs in the path network (Column 9 Line 7-9).

Regarding to claim 2 and 9, Ikeda teaches the transmitting node transmits the path signals obtained by attaching a path overhead to client signals (Column 10

Line 26-27), where the path overhead contains an automatic path conversion information to be used in converting a protection path into a working path (Column 10 Line 26), and at the converting step, the transmitting node and the receiving node convert the protection path into a working path by using the automatic path conversion information contained in the path overhead (Column 10 Line 30-32).

Regarding to claim 3 and 10, Ikeda teaches the converting step further comprises the steps of: at the transmitting node, transmitting the path signals with the path overhead that contains the automatic path conversion information indicating a protection path conversion request for requesting a conversion of the protection path into a working path to the receiving node (Column 17 Line 27-28); at the receiving node, in response to the protection path conversion request, reserving an output terminal at a receiving side, connecting an input of the output terminal to a path from which the protection path conversion request is received, and returning the path signals with the path overhead that contains the automatic path conversion information indicating a protection path conversion reverse request for requesting transmission of signals through a converted path to the transmitting node (Column 17 Line 49-51); and at the transmitting node, in response to the protection path conversion reverse request, transmitting the path signals with the path overhead that contains the automatic path conversion

information indicating a protection path conversion complete notice to the receiving node, through the converted path (Column 17 Line 54-57).

Regarding to claim 7 and 14, Ikeda teaches a method for operating a path network for carrying out communications between nodes using one or more working paths and one or more protection paths, the method comprising the steps of: transmitting path signals from a transmitting node to a receiving node through the working paths and the protection paths (Column 10 Line 4-5); and converting one of the protection paths into a working path temporarily in order to increase a bandwidth of the working paths when a bandwidth increase request occurs in the path network (Column 9 Line 7-9). The steps of releasing a part of the working paths and the protection paths in order to reduce a bandwidth of the working paths and the protection paths when a required bandwidth in the path network decreases is inherent.

Regarding to claim 15 and 18, Ikeda teaches a node device functioning as a transmitting node in a path network for carrying out communications between nodes using one or more working paths and one or more protection paths, the node device comprising: a plurality of path generation units 1, each path generation unit transmits path signals obtained by attaching a path overhead to client signals (Column 10 Line 4-5), where the path overhead contains an automatic path

conversion information to be used in converting one of the protection paths into a working path (Column 9 Line 7-9), such that the protection path is converted into a working path temporarily by using the automatic path conversion information contained in the path overhead, in order to increase a bandwidth of the working paths when a bandwidth increase request occurs in the path network (Column 9 Line 7-9); a plurality of multiplexing units 24-2, each multiplexing unit multiplexes the path signals to be transmitted through each route and transmits multiplexed path signals through each route; and a switch unit 4 for switching the path signals transmitted by the path generation units into the multiplexing units.

Regarding to claim 16 and 19, Ikeda teaches the path generation units transmit the path signals with the path overhead that contains the automatic path conversion information indicating a protection path conversion request for requesting a conversion of a protection path into a working path to the receiving node (Column 17 Line 27-28), and when the transmission node receives the path signals with the path overhead that contains the automatic path conversion information indicating a protection path conversion reverse request for requesting transmission of signals through a converted path to the transmitting node, that is returned from the receiving node in response to the protection path conversion request (Column 17 Line 49-51), the path generation units transmit the path signals

with the path overhead that contains the automatic path conversion information indicating a protection path conversion complete notice to the receiving node, through the converted path, in response to the protection path conversion reverse request (Column 17 Line 54-57).

Regarding to claim 17 and 20, Ikeda teaches teach path generation unit attaches the path overhead that also contains a priority order information indicating a priority order of each path to the path signals to be transmitted through each path, such that the transmitting node and the receiving node convert the protection path into a working path by using the priority order information contained in the path overhead attached to the path signals transmitted through each path (Column 16 Line 7-12).

Allowable Subject Matter

4. Claim 4-6 and 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter in claim 4-6 and 11-13: Prior art of the record, cited herein, fails to disclose re-arranging the working paths and the protection paths after the adding step such that all the working paths connect the transmitting node and the receiving

node via a first route and all the protection paths connect the transmitting node and the receiving node via a second route.

Response to Arguments

6. Applicant's arguments filed on September 1, 2004, have been fully considered but they are not persuasive.

Regarding to claim 1, the applicants argues that Ikeda teaches only replacing a working path with a protection path when there has been a failure (Remark page 11 line 7-8) and fails to teach using both working and protection paths to increase the bandwidth (Remark page 11 line 19-21). Ikeda teaches replacing a working path with a protection path when there has been a failure (Column 9 Line 1-3). However, Ikeda also teaches using both working and protection paths to increase the bandwidth (Column 9 Line 7-9). Another prior art, Badr (US 6,775,477), also teaches the limitation of using both working and protection paths to increase the bandwidth (Column 3 Line 35-38).

Therefore, the examiner contends that Ikeda teaches using the protection path to increase the bandwidth.

Regarding to claim 8, 15 and 18, these claims are rejected for having same limitation as claim 1.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to the invention in general.

U.S. Patent 6,775,477 to Badr

U.S. Patent 6,616,350 to de Boer et al.

U.S. Patent 5,848,055 to Fedyk et al.

U.S. Patent 6,643,464 to Roorda et al.

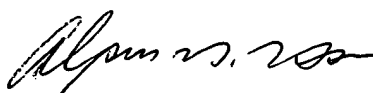
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. H.

Clemence Han
Examiner
Art Unit 2665



ALPUS H. HSU
PRIMARY EXAMINER